SASI ENGINEER-SAFE VALIDATION PACKAGE v1.3

Supplemental Hardening Addendum III: Structural Coupling Variants & Operator Biophysical Controls

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Date: January 22, 2026

Scope and Intent

This addendum defines optional but formally documented experimental variants related to structural coupling and operator-state stabilization during high-sensitivity geometry-dependent acoustic measurements. This document introduces no physical mechanism claims and does not modify existing decision criteria. All procedures are intended solely to reduce, classify, or analyze sources of experimental variance.

1. Structural Coupling Variants

Variant A: Elastically Isolated Assembly
A compliant interface (e.g., rubber gasket or elastomer layer) is used between the isolation plate and the scale. Purpose: attenuation of broadband vibration and mechanical artifact transmission. Risk controlled: floor-coupled vibration and load-cell nonlinearity.

Variant B: Rigid Metal-to-Metal Assembly
Direct rigid coupling between the isolation plate and scale without compliant materials. Purpose: preservation of geometric phase coherence and maximal structural coupling. Risk introduced: increased sensitivity to vibrational artifacts.

Both variants are permitted. The selected variant must be explicitly documented in all datasets and reports.

2. Operator Biophysical Stabilization Protocol

Prior to data acquisition, the operator shall undergo a 60-second physiological stabilization period to minimize biophysical electromagnetic noise and stochastic interference. This includes steady respiratory entrainment, maintenance of a neutral observational state, and internal clarification of measurement intent. This protocol is a noise-reduction measure only.

3. Measurement Timing and Data Logging

Warm-up period: 60 seconds (data discarded).
Data capture window: 120 seconds continuous logging.
Thermal cooldown: 60 seconds at zero power between runs.

4. Operator-State Categorization

Category A: Operator successfully completed stabilization protocol.
Category B: Operator experienced distraction or failed stabilization. Category B data shall be retained for comparative analysis.

5. Signal Signature Verification (Analytical Annotation Only)

Pattern Mode (120-degree) runs may be analyzed for a logarithmic DC load-cell deviation and low-frequency secondary oscillation (7–9 s period). These signatures are predicted to collapse under Detuned Mode (90-degree) conditions. This analysis does not constitute a pass/fail criterion.

Claims Boundary

This addendum asserts no claims regarding gravity modification, energy extraction, over-unity behavior, new physics, or biological effects. It defines only optional experimental controls and classifications.